Ashis Kumar Pal

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<u>Address:</u> 99 Florence Street, Apartment No 608, Malden, MA, 02148.

Data Scientist | Industrial Engineer | Transportation and Logistics Enthusiast

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Data Scientist and Industrial Engineer with a multidisciplinary background encompassing Production Engineering, Operations Research, and Data & Systems. Skilled in optimizing processes across various sectors, including industrial operations and transportation. My diverse experience includes production management, supply chain optimization, and transportation network resilience analysis. I am comfortable working with data-intensive projects and am eager to leverage my diverse skillset to contribute to innovative and impactful solutions.

EDUCATION

MS in Civil and Environmental Engineering (Major: Data and Systems)

Northeastern University, Boston, MA.   **Sep 2020 - Apr 2024 (Expected)**

- CGPA 3.92 / 4.0
- **Learned Topics:** Transportation Demand Forecasting and Model Estimation, Operations Research, Time Series and Geo-Spatial Data Sciences, Critical Infrastructure Resilience, Dynamical Processes in Complex Networks, Supervised Machine Learning, Complex Networks, Critical Infrastructure Resilience.

B.Sc. in Industrial and Production Engineering

Bangladesh University of Engineering and Technology (BUET)   **May 2012 - Feb 2017**

- CGPA 3.32 / 4.0
- **Learned Topics:** Operations Research, Probability and Statistics, Manufacturing Process-I and II, Supply Chain Management, Operations Management, Product Design, Computer Integrated Manufacturing.

EMPLOYMENT HISTORY

Research Assistant, Sustainability and Data Sciences Lab.

Boston, MA.   **Sep 2020 - Present**

Role Focus: Urban rail transportation network resilience, Flood Hazard Mapping & Risk Assessment, GIS Applications, Climate Model (CMIP6) Analysis.

Production and Inventory Manager, Twice Group Ltd.

Dhaka, Bangladesh.   **July 2019 - Sep 2020**

Role Focus: Production of industrial sewing thread, capacity analysis, maintenance, inventory management, lean manufacturing, dyes & chemical sourcing.

Master Production Scheduler, Partex Star Group.

Dhaka, Bangladesh.   **Dec 2018 - Jun 2019**

Role Focus: Demand forecasting, production scheduling, inventory management, supply and operations planning execution.

Production Planning and Coordination Executive, Fakir Apparels Ltd.

Narayanganj, Bangladesh.   **Mar 2017 - Sep 2018**

Role Focus: Production planning, capacity analysis, lean Manufacturing, co-ordination and plan execution, waste reduction.

RESEARCH PUBLICATIONS

Network Science-Based Resilience Analysis of Urban Rail Transportation Systems. [COMPLEX NETWORKS]   **Sep 2021**

An extended abstract got accepted in the 10th International Conference on Complex Networks and their Applications.

Robustness of Urban Coastal Rail Network under Projected Future Floods.

[ACM SIGKDD Fragile Earth]   **July 2022**

Paper got accepted in the ACM SIGKDD 2022 (Fragile Earth Workshop).

PROFESSIONAL DEVELOPMENT & CERTIFICATIONS

DATACAMP: Introduction to SQL   **Mar 2023**

Key Learnings: Relational Databases, creating SQL queries, PostgreSQL, and SQL Server

COURSERA: GOOGLE: Google Data Analytics Specialization   **Mar 2022**

Key Learnings: Data driven decision making, SQL, Phases of data analysis.

DATACAMP: Supervised Learning with scikit-learn   **May 2020**

Key Learnings: Classification and Regression models, ROC, AUC, Data preprocessing.

EDX: TUMx: Lean Production   **Nov 2018**

Key Learnings: Toyota Production System, Capacity Analysis, Just-In-Time (JIT), Kaizen/Continuous Improvement.

ACADEMIC PROJECTS

- Predictive Modeling of Climate Trends with Machine Learning   **DS 5220**
- Designing Detention Basin Satisfying Massachusetts Stormwater Standard   **CIVE 5536**
- Data-Driven Robustness of Transportation Networks   **CIVE 7110**
- Optimization of Two Telecommunication Network Design Problem   **OR 7310**

TEACHING EXPERIENCE

CIVE 7110 – Critical Infrastructure Resilience.   **Fall 2021**

CIVE 3464 – Probability and Engineering Economy for Civil Engineering.   **Spr 2022**

SOFTWARE SKILLS

- Programming: Python, MATLAB, R, SQL.
- Data Visualization: Tableau, ArcGIS Dashboard, Google Earth Engine, Gephi.
- Design: AUTOCAD, Autodesk Civil 3D.
- Web Design: HTML, CSS, JS.
- Office Suite: Microsoft Office Package, Google Suite.
- Hydrologic Modeling: HEC-RAS, HEC-HMS.
- Business Planning: ERP, SAP (Learning).
- Video Editing: Adobe After Effects, Filmora.